Part No. 306311-A Rev 00
January 2000

4401 Great America Parkway
Santa Clara, CA 95054

Installing a System Processor Card in the Passport 5430 Multiservice Access Switch

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Warning: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case, the user may be required to take appropriate measures.

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Canada Requirements Only

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Passport 5430 Multiservice Access Switch) does not exceed the Class A limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Règlement sur le brouillage radioélectrique du ministère des Communications

Cet appareil numérique (Passport 5430 Multiservice Access Switch) respecte les limites de bruits radioélectriques visant les appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique du ministère des Communications du Canada.

Canada CS-03 Rules and Regulations

Notice: The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The

customer should be aware that compliance with the above conditions may not prevent the degradation of service in some situations.

Canada Requirements Only *(continued)*

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Notice: For equipment using loopstart lines, please note that the Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5. The REN is located on the “FCC Rules Part 68” label located on the bracket of the module, or on the back of the unit.

Canada CS-03 -- Règles et règlements

Avis: L'étiquette d'Industrie Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

Avis: Veuillez prendre note que pour tout appareillage supportant des lignes de type “loopstart,” l'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface. La terminaison d'une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5. Le REN figure sur l’étiquette “FCC Rules Part 68” située sur le support du module ou à l’arrière de l’unité.

FCC Part 68 Compliance Statement

This equipment complies with Part 68 of FCC Rules. All direct connections to telephone network lines must be made using standard plugs and jacks compliant with FCC Part 68. Please note the following:

1. You are required to request service from the telephone company before you connect the unit to a network. When you request service, you must provide the telephone company with the following data:
   - When you request T1 Service, you must provide the telephone company with
     -- The Facility Interface Code

        Provide the telephone company with all the codes below:

        - 04DU9-BN (1.544 MB, D4 framing format)
        - 04DU9-DN (1.544 MB, D4 framing format with B8ZF coding)
        - 04DU9-1KN (1.544 MB, ESF framing format)
        - 04DU9-1SN (1.544 MB, ESF framing format with B8ZF coding)
        - 04DU9-1ZN (1.544 MB, ANSI ESF and ZBTSI without line power)

        The telephone company will select the code it has available.

     -- The Service Order Code(s) (SOC): 6.0Y

     -- The required Universal Service Order Code (USOC) jack: RJ48C
   - When you request ISDN “U” Interface Service, you must provide the telephone company with
     -- The Facility Interface Code: 02IS5

     -- The Service Order Code(s) (SOC): 6.0F

     -- The required Universal Service Order Code (USOC) jack: RJ49C
   - When you request ISDN “S/T” Interface Service, you must provide the telephone company with
     -- The Service Order Code(s) (SOC): 6.0P

     -- The make, model number, and FCC Registration number of the NT1

     Note: ISDN S/T cannot be directly connected to the network.

   - When you request Primary Rate ISDN Service, you must provide the telephone company with
     -- The Facility Interface Code: 04DU9-1SN (1.544 MB, ESF framing format with B8ZF coding)

     -- The Service Order Code(s) (SOC): 6.0Y

     -- The required Universal Service Order Code (USOC) jack: RJ48C
2. Your telephone company may make changes to its facilities, equipment, operations, or procedures that could affect the proper functioning of your equipment. The telephone company will notify you in advance of such changes to give you an opportunity to maintain uninterrupted telephone service.
3. If the unit causes harm to the telephone network, the telephone company may temporarily discontinue your service. If possible, they will notify you in advance, but if advance notice is not practical, you will be notified as soon as possible and will be informed of your right to file a complaint with the FCC.
4. If you experience trouble with the unit, please contact the Nortel Networks Technical Solutions Center in your area for service or repairs. Repairs should be performed only by service personnel authorized by Nortel Networks.

United States	1-800-2LANWAN
Valbonne, France	33-4-92-96-69-68
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5. You are required to notify the telephone company when you disconnect the unit from the network.

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Preface

In this guide, the Passport™ 5430 Multiservice Access Switch is referred to as the Passport 5430.

Before You Begin

This guide is intended for qualified service personnel who need to install or replace a system processor card. A qualified service person should have appropriate technical training and experience and be aware of the hazards involved in installing and replacing CRUs.

Text Conventions

This guide uses the following text conventions:

italic text	Indicates new terms and book titles.

Acronyms

DIMM	dual in-line memory module
EIA	Electronic Industries Association
LED	light-emitting diode
PMC	PCI mezzanine card
PROM	programmable reald-only memory

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Santa Clara, CA	800-2LANWAN (800-252-6926)
Valbonne, France	33-4-92-96-69-68
Sydney, Australia	61-2-9927-8800
Tokyo, Japan	81-3-5402-7041

Chapter 1
Passport 5430 System Processor Overview

This document supplements *Installing and Operating the Passport 5430 Multiservice Access Switch*. Follow the hardware installation steps in that manual, then refer to this document for information specific to the system processor card.

Warning: The system processor card is designed to operate in the Passport 5430 Multiservice Access Switch only. Attempting to use the system processor card in any other product may be hazardous and invalidates the regulatory approval.

System Processor Hardware Description

The Passport 5430 system processor hardware has two types of components:

- A system processor card
- ATM T1/E1 PMC module

The system processor card (Figure 1-1) can accommodate one ATM T1/E1 PMC module. The PMC module plugs into connectors on the system processor card. The system processor card, with PMC module installed, installs into the Passport 5430 chassis.

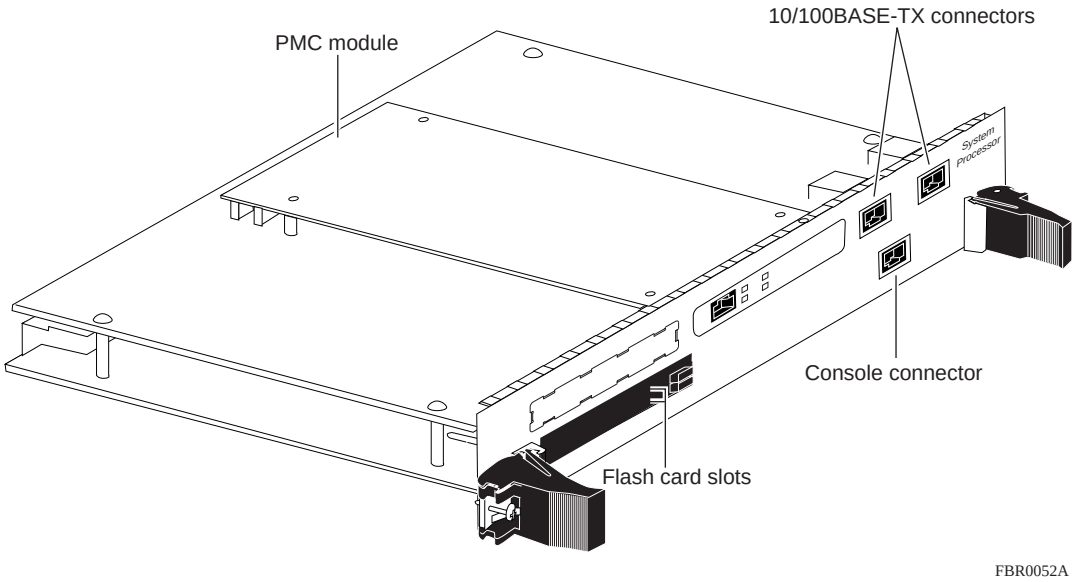

Figure 1-1. Passport 5430 System Processor Card with PMC Module

System Processor Card

The system processor card includes two flash card slots, a PMC module opening, two 10/100BASE-TX connectors, and a console connector (Figure 1-2).

Two DIMM connectors on the system processor card provide 64 Mb of memory.

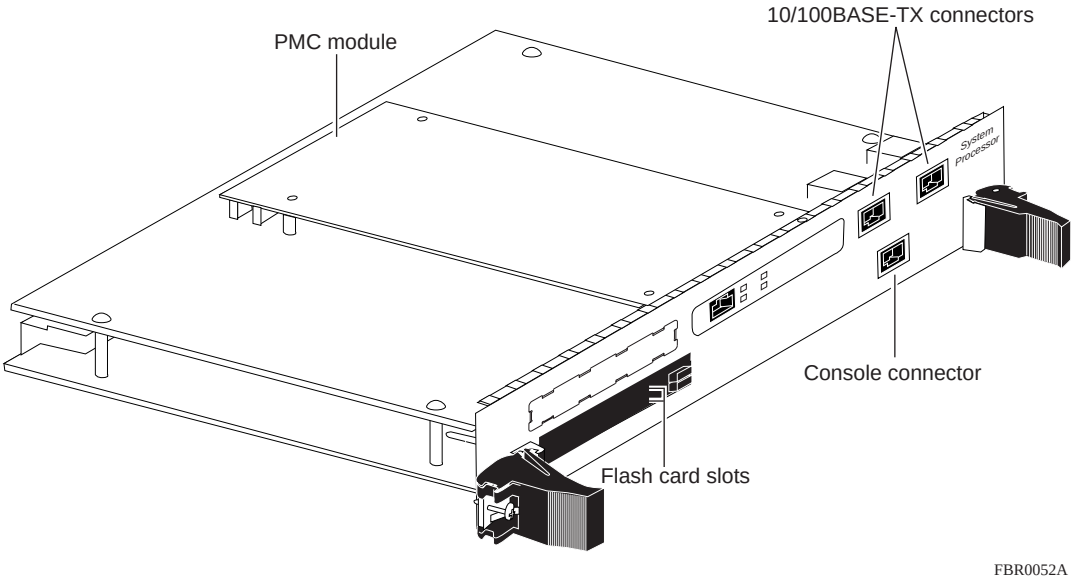

Figure 1-2. System Processor Card with PMC Module

The system processor card includes diagnostic LEDs and LAN interface LEDs, visible on the front panel of the Passport 5430.

Diagnostic LEDs

The system processor card diagnostic LEDs (Figure 1-3) indicate the status of the Passport 5430 itself. All of these LEDs light briefly when you turn on the Passport 5430 power switch. Use the LEDs to verify that the processor card is operating after installation.

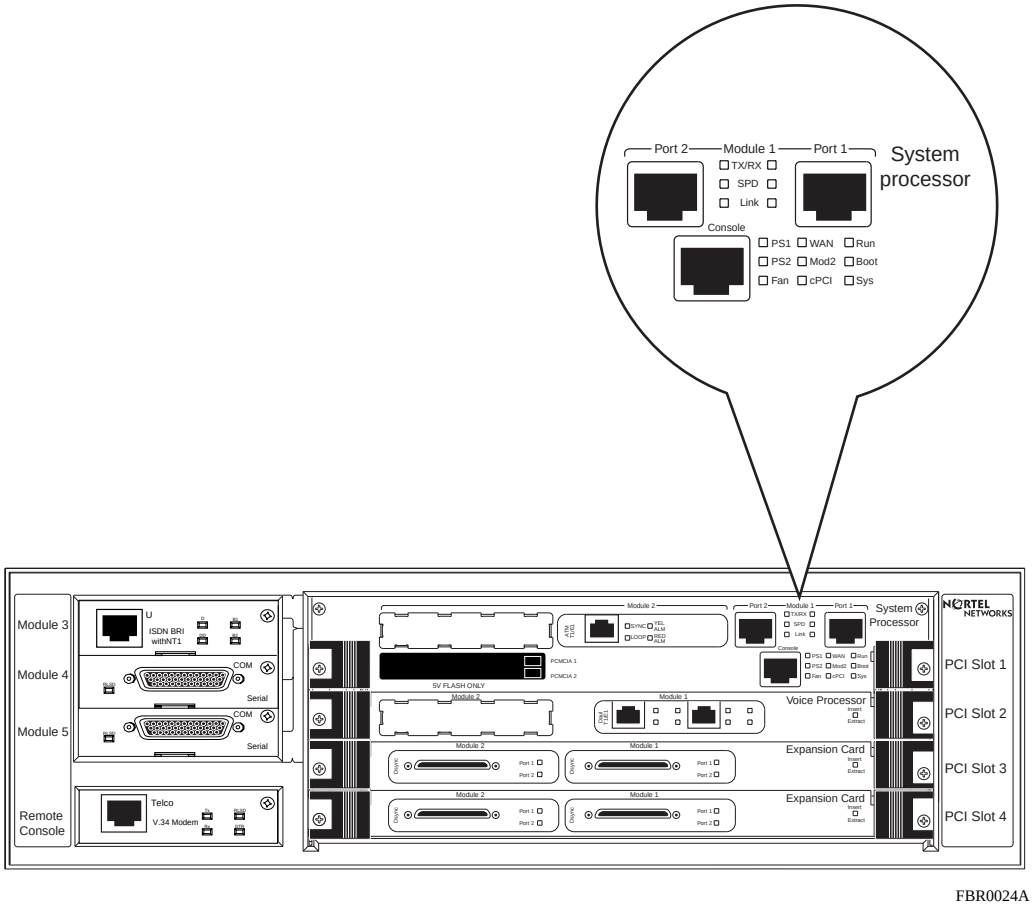

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Figure 1-3. Passport 5430 System Processor Card Diagnostic LEDs

Table 1-1 describes the system processor card console LEDs.

Table 1-1. System Processor Card Console LEDs

LED	State	Meaning
PS1	Off	Power is off.
	On (green)	Power supply is operating.
	Rapid flashing (green)	Power supply failed.
PS2	Off	Power is off.
	On (green)	Redundant power supply (optional) is operating.
	Rapid flashing (green)	Redundant power supply failed.
Fan	Off	Fan is operating properly.
	On (green)	One or more cooling fans stopped operating.
	Rapid flashing (green)	Fan failed.
WAN	Off	WAN adapter module was not tested.
	On (green)	WAN adapter module is operating properly.
	Slow flashing (green)	Module is running its diagnostic tests.
	Rapid flashing (green)	Module failed its diagnostic tests.
Mod 2	Off	Module 2 was not tested.
	On (green)	Module 2 is operating properly.
	Slow flashing (green)	Module 2 is running its diagnostic tests.
	Rapid flashing (green)	Module 2 failed its diagnostic tests.
Run	Off	Processor code is not loaded.
	On (green)	Passport 5430 is operational.
	Slow flashing (green)	Diagnostic tests are running.
	Rapid flashing (green)	Diagnostic tests found failures.
Boot	Off	Passport 5430 is not in boot mode.
	Slow flashing (green)	Diagnostic tests were successful and the Passport 5430 is booting.
	Rapid flashing (green)	Diagnostic tests found failures and the Passport 5430 is booting.

(continued)

Table 1-1. System Processor Card Console LEDs *(continued)*

LED	State	Meaning
Sys	Off	System processor card was not tested.
	On (green)	System processor card is operating properly.
	Slow flashing (green)	System processor card is running its diagnostic tests.
	Rapid flashing (green)	System processor card failed its diagnostic tests.
cPCI	Off	Expansion cards or voice processor cards not tested.
	On (green)	One or more expansion cards or voice processor cards is installed and operating properly.
	Slow flashing (green)	One or more expansion cards or voice processor cards is running its diagnostic tests.
	Rapid flashing (green)	One or more expansion cards or voice processor cards failed its diagnostic tests.

Module 1 Port LEDs

Table 1-2 describes the system processor card (module 1) Port 1 and Port 2 LEDs.

Table 1-2. System Processor Card Port LEDs

LED	State	Meaning
TX (Transmit)/ RX (Receive)	Off	No transmit or receive activity
	On (green)	Port interface is transmitting or receiving data.
	On (amber)	Port interface detects a collision.
SPD	Off	Port is in 10 Mb/s mode.
	On (green)	Port is in 100 Mb/s mode.
Link	Off	Link is not active.
	On (green)	Link is active.

How to Use This Guide

Refer to Table 1-3, identify the scenario that matches your objective, and follow the associated steps.

Table 1-3. Installation Tasks and Procedures

If you need to...	You must...
Install a system processor card	1. Install the PMC module onto the system processor card. See “Installing a PMC Module Onto a System Processor Card” on page 2-2. 2. Install the system processor card into the Passport 5430 chassis See “Installing a System Processor Card” on page 3-1.
Replace a system processor card	1. Install the PMC module onto the system processor card. See “Installing a PMC Module Onto a System Processor Card” on page 2-2. 2. Remove the system processor card. See “Removing the System Processor Card” on page 3-5. 3. Install the system processor card into the Passport 5430 chassis. See “Installing a System Processor Card” on page 3-1.
Add PMC module to an installed system prcoessor card	1. Remove the installed system processor card. See “Removing the System Processor Card” on page 3-5. 2. Install the PMC module onto the system processor card. See “Installing a PMC Module Onto a System Processor Card” on page 2-2. 3. Install the system processor card into the Passport 5430 chassis. See “Installing a System Processor Card” on page 3-1.

Chapter 2
Installing a PMC Module Onto the System Processor Card

Complete the steps in this chapter to install an ATM T1/E1 PMC module onto the system processor card. Each system processor card can accommodate one ATM T1/E1 PMC module.

Caution: Electrostatic discharge can damage hardware. You must wear the antistatic wrist strap on your arm whenever you handle printed circuit boards. Refer to the instructions enclosed with your antistatic wrist strap to attach it.

Installing a PMC Module Onto a System Processor Card

To install a PMC module onto a system processor card:

1. **If necessary (first time installation), push the PMC module filler panel out from behind the card bezel (Figure 2-1).**

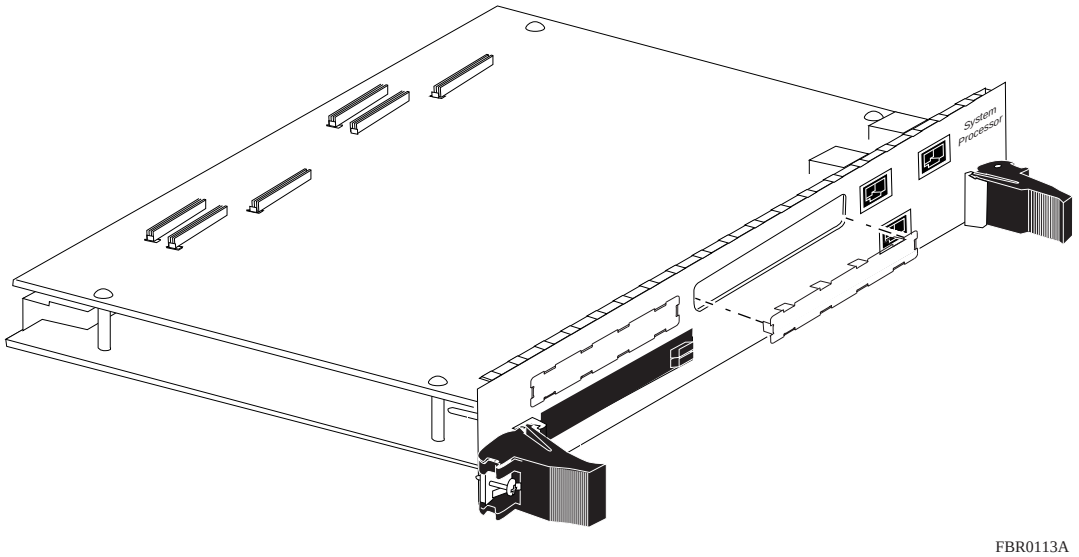

Figure 2-1. Removing a PMC Module Filler Panel

2. **Orient the PMC module so that its connectors are aligned with the connectors on the system processor card (Figure 2-2).**

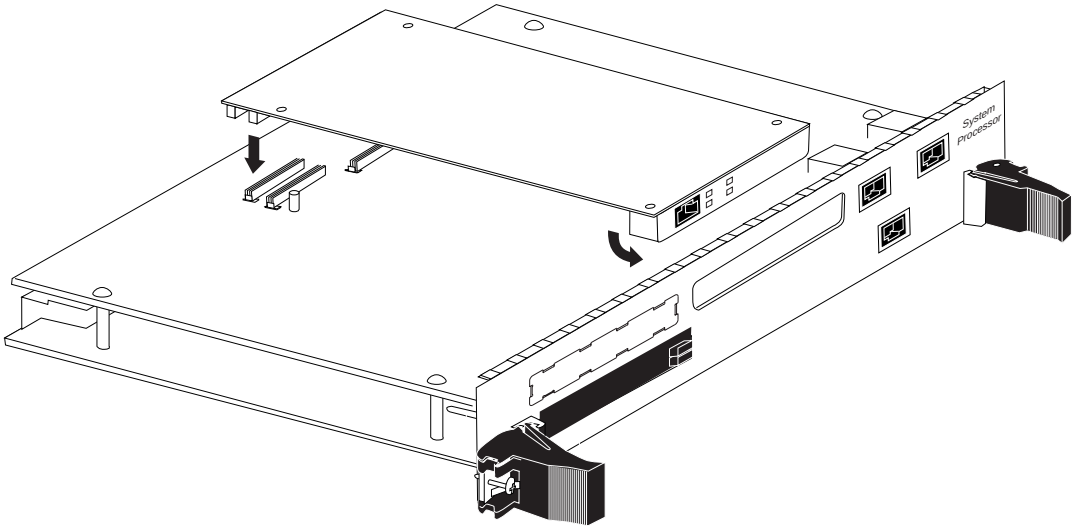

Figure 2-2. Installing a PMC Module

3. **Press the PMC module into the connectors on the system processor card (Figure 2-2).**

   Make sure the PMC module is properly seated in the connectors.

4. **Secure the PMC module with the four screws provided (Figure 2-3).**

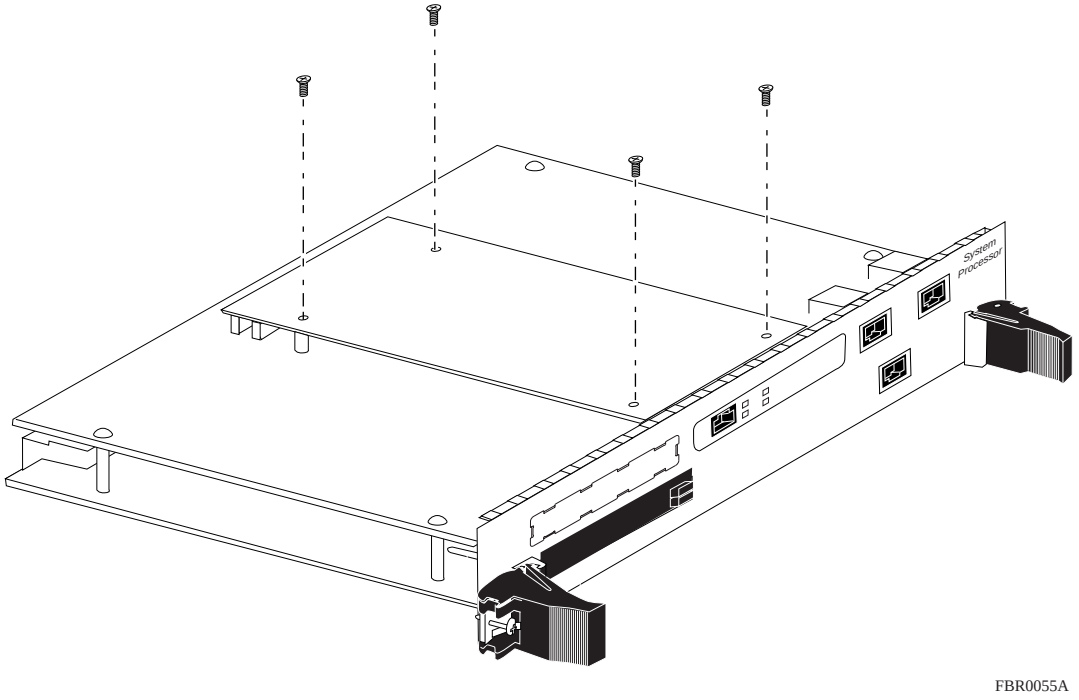

Figure 2-3. Securing the PMC to the Expansion Card

5. **Install the system processor card into the Passport 5430 chassis.**

   For instructions, see “Installing a System Processor Card” on page 3-1.

Removing and Replacing a PMC Module

Occasionally it may be necessary to remove or replace a PMC module on the system processor card. To remove and replace a PMC module on a system processor card:

1. **Remove the system processor card from the Passport 5430 chassis.**

   For instructions, see “Removing the System Processor Card” on page 3-5.

2. **Locate the installed PMC module you wish to remove or replace.**
3. **Remove the four screws securing the PMC module (Figure 2-4).**

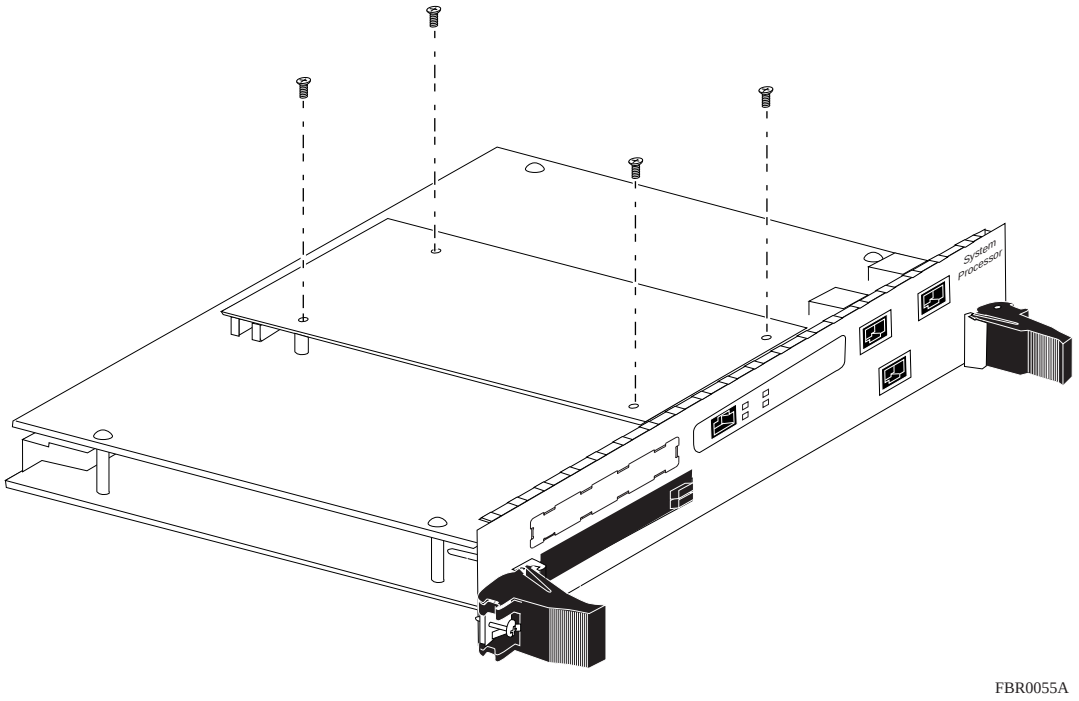

Figure 2-4. Removing the PMC Module Screws

4. **Remove the PMC module by pulling it straight up and out of the system processor card sockets (Figure 2-5).**

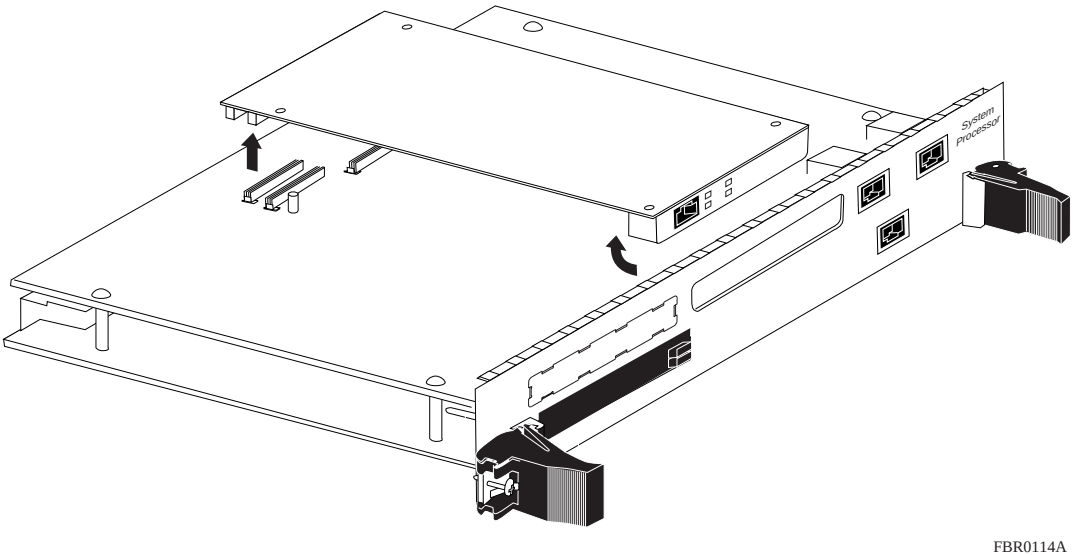

Figure 2-5. Removing a PMC Module

5. **If required, follow the instructions in "Installing a PMC Module Onto a System Processor Card" on page 2-2 to install a replacement PMC module.**

Chapter 3
Installing the System Processor Card

This chapter describes how to install and replace a Passport 5430 system processor card.

Installing a System Processor Card

To install a system processor card:

1. **Turn off the Passport 5430.**
2. **If present, turn off the redundant power supply.**
3. **Put on an antistatic wrist strap.**

Caution: Electrostatic discharge can damage hardware. You must wear the antistatic wrist strap on your arm whenever you handle printed circuit boards. Refer to the instructions enclosed with your antistatic wrist strap to attach it.

4. **Install a PMC onto the system processor card.**

   For instructions, see “Installing a PMC Module Onto a System Processor Card” on page 2-2.

5. **Locate PCI Slot 1 at the top of the chassis.**

6. **Hold the system processor card with the components facing up (Figure 3-1).**

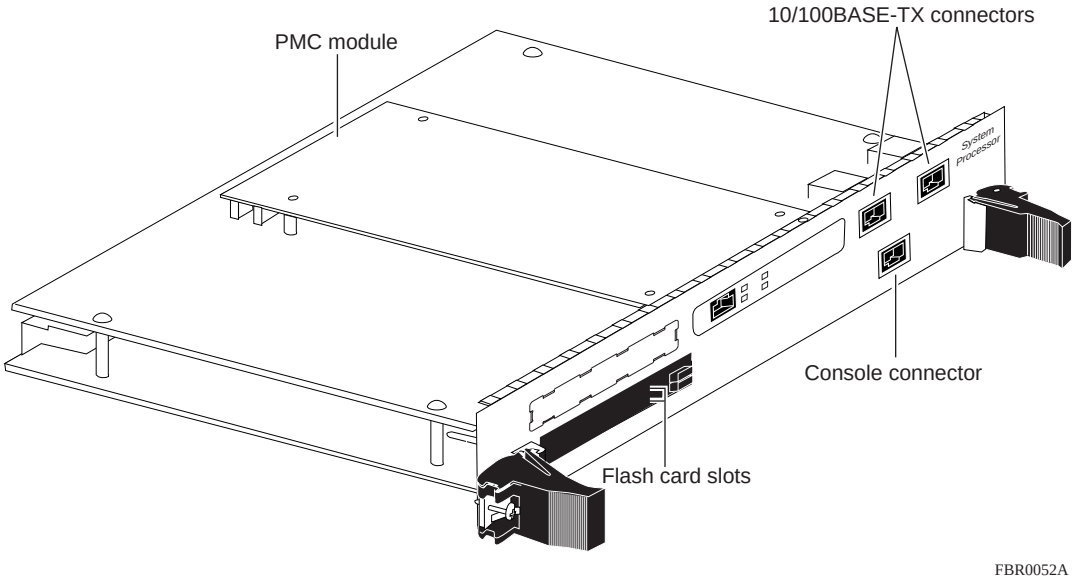

Figure 3-1. System Processor Card Ready for Installation

7. **Slide the system processor card into the slot, making sure that the slot guides engage both sides of the card assembly (Figure 3-2).**

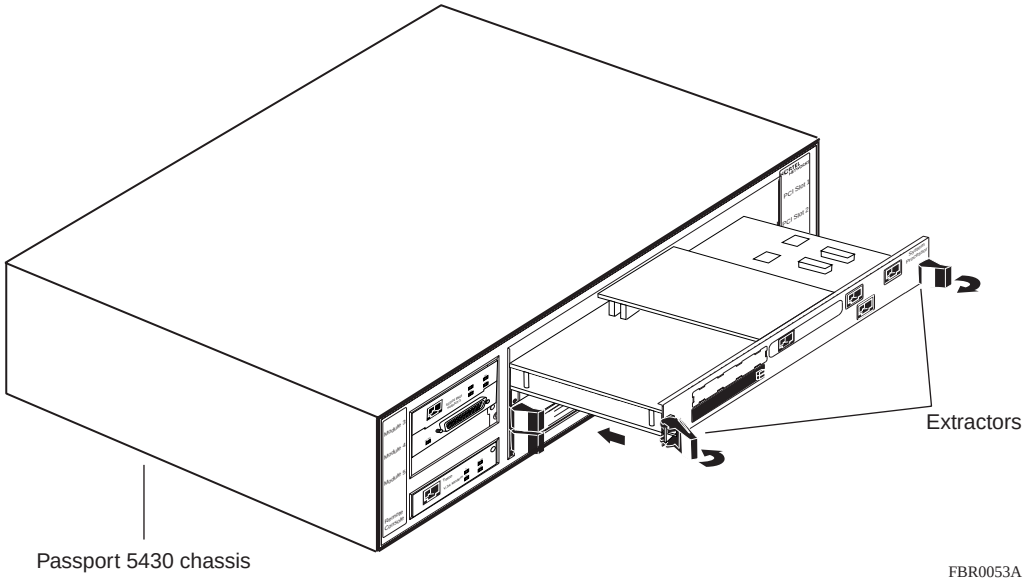

Figure 3-2. Inserting the System Processor Card

8. **Push the system processor card in until its connector pins align with the system processor card connector socket in the Passport 5430 chassis.**
9. **Push the extractors in to lock the card in place (Figure 3-2).**

10. **Using a Phillips screwdriver, tighten 2 captive screws in the extractors and the 2 captive screws above the extractors (Figure 3-3).**

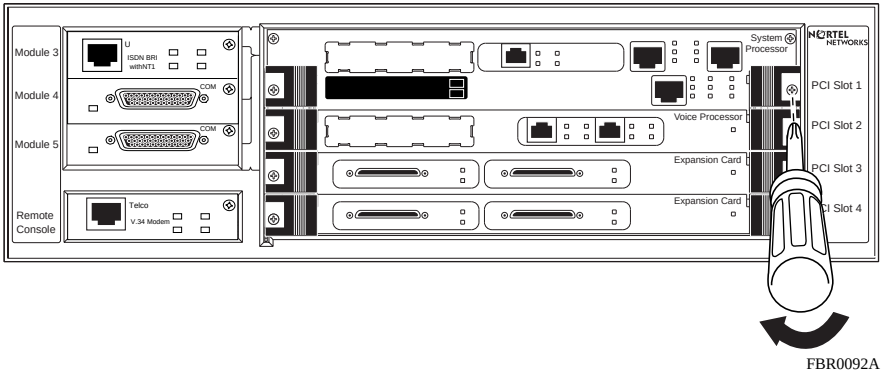

Figure 3-3. Tightening the Extractor Screws

11. **Connect the cabling to the new interface.**

    For cabling information, see Chapter 4, “Connecting Cables.”

12. **Turn power on, and check the diagnostic LEDs on the front panel of the system processor card.**

Removing the System Processor Card

Occasionally it may be necessary to remove a system processor card.

To remove a system processor card:

1. **Turn the power switch on each of the power supplies to off (0) position (Figure 3-4).**

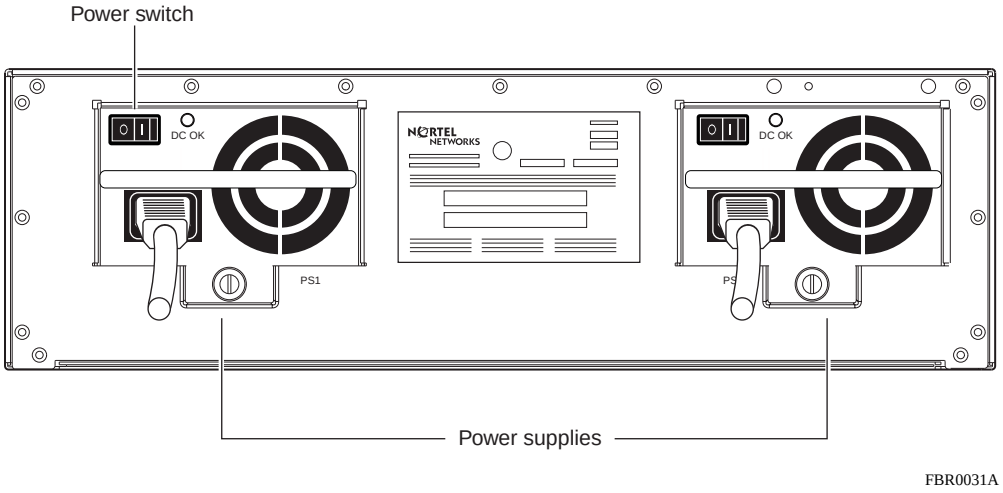

Figure 3-4. Passport 5430 Power Switch

2. **If present, turn off the redundant power supply.**
3. **Attach an antistatic wrist strap.**

Caution: Electrostatic discharge can damage hardware. You must wear the antistatic wrist strap whenever you handle printed circuit boards. See the instructions included with the wrist strap.

4. **Disconnect any cables attached to the ports on the system processor card.**

5. **Using a Phillips screwdriver, loosen the four captive screws that fasten the system processor card to the chassis(Figure 3-5).**

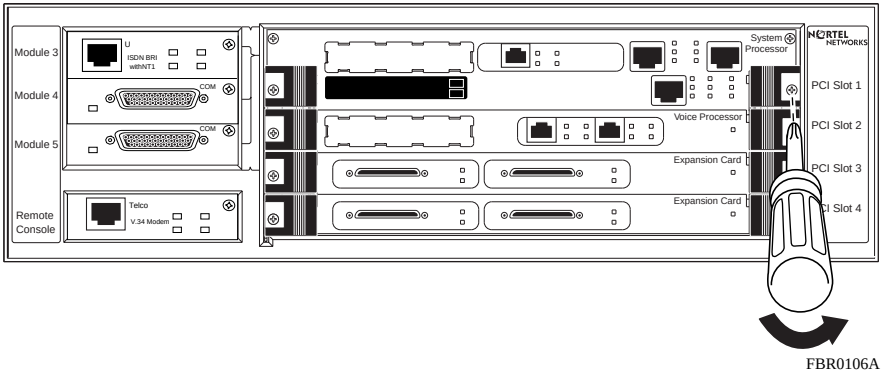

Figure 3-5. Loosening the Extractor Screws

6. **Gently pull the inside of the board extractors at each end of the system processor card away from you (Figure 3-6).**

   The extractors swing open, pulling the card out of the backplane connectors.

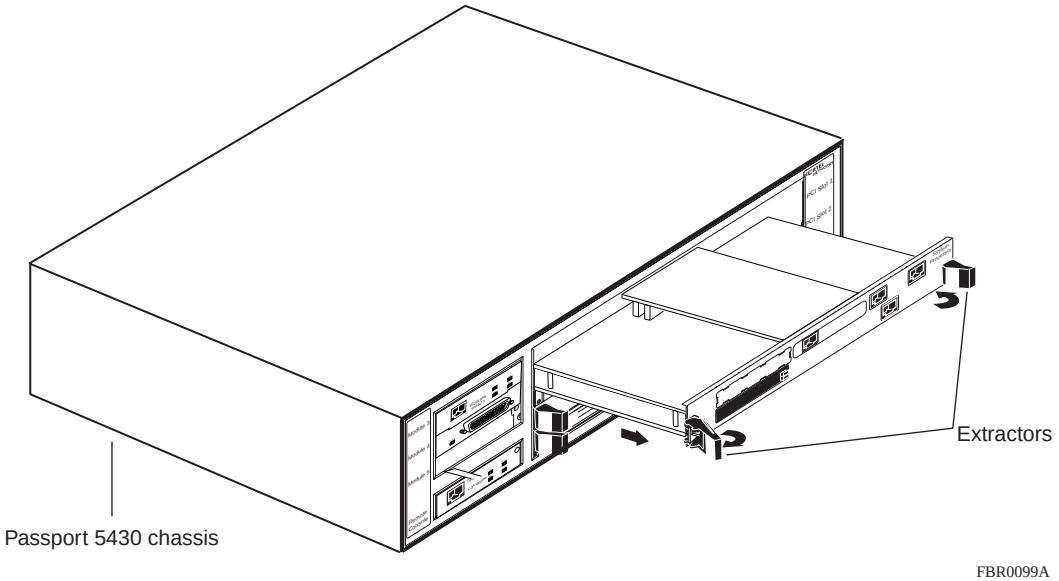

Figure 3-6. Removing the System Processor Card

7. **Pull the system processor card toward you to detach it from the system processor card connector in the Passport 5430 chassis.**

   Be prepared to apply some force, but stop pulling immediately as soon as the system processor card is free from the system processor card connector.

8. **Slide the system processor card all the way out of the slot.**

9. **Place the system processor card in an antistatic bag.**

10. **Reinstall the PMC module on the replacement system processor card if necessary.**

    a. **Hold the PMC module with the connectors facing down.**

    b. **Place the PMC module on the system processor card and press down on the PMC module to seat it in the socket (Figure 3-7).**

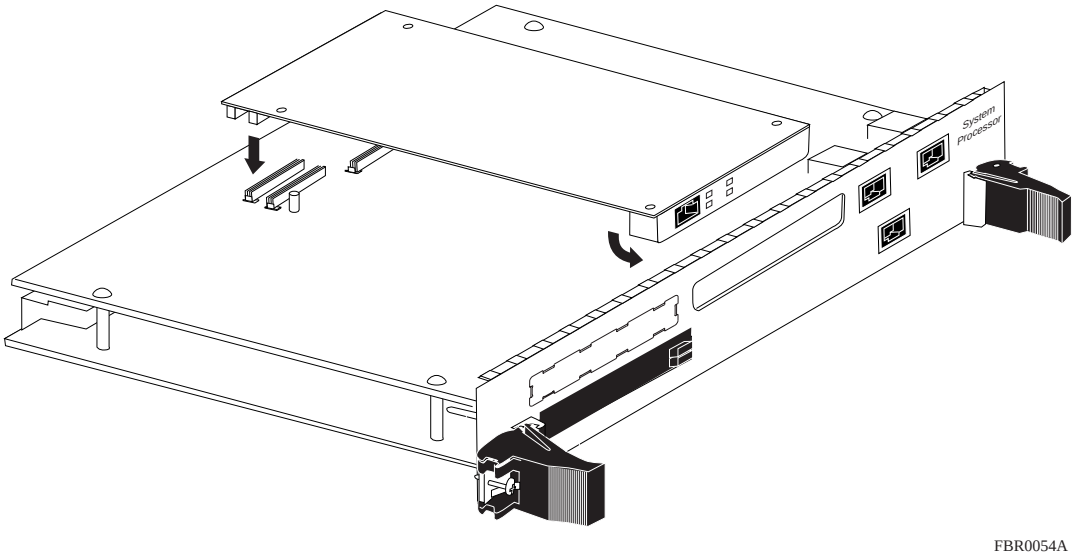

Figure 3-7. Seating the PMC in the Socket

c. Insert and tighten the 4 screws using a Phillips screwdriver to secure the PMC to the system processor card (Figure 3-8).

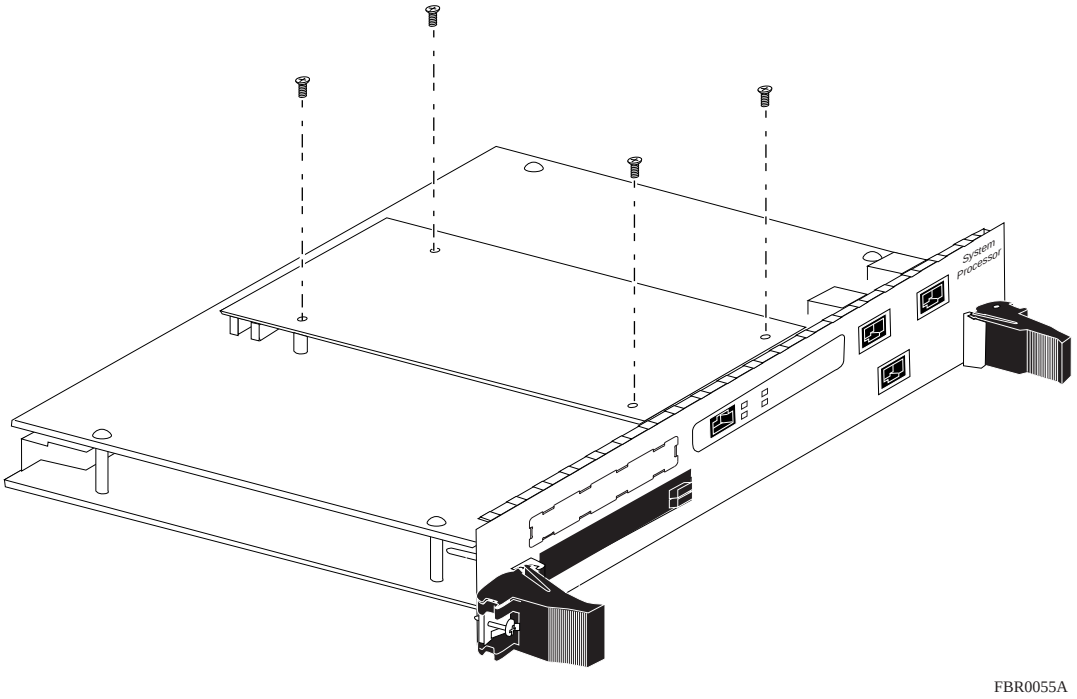

Figure 3-8. Securing the PMC Module to the System Processor Card

11. **Hold the replacement system processor card with the components facing up (Figure 3-9).**

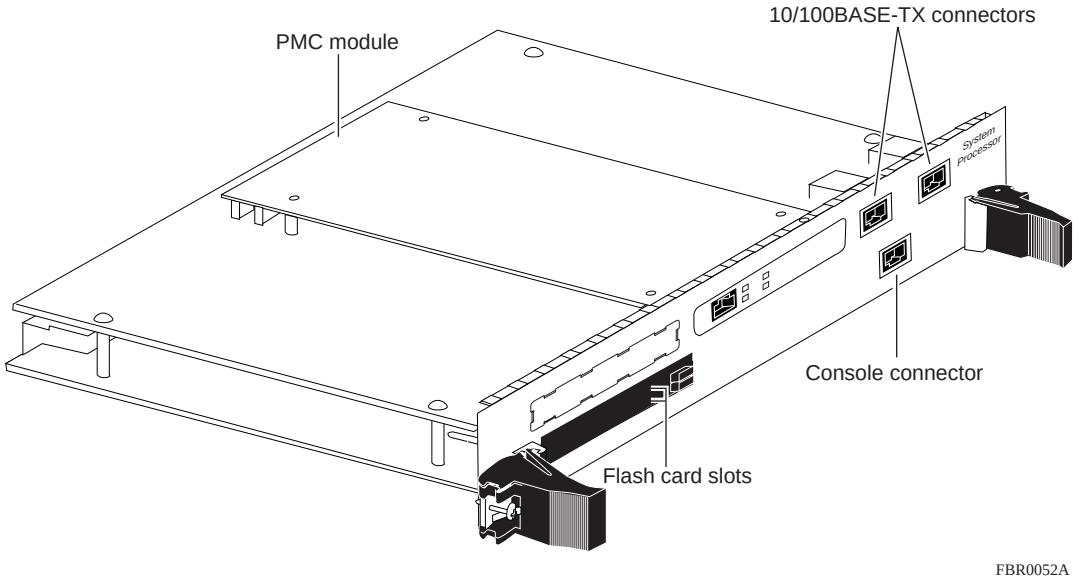

Figure 3-9. System Processor Card Ready for Installation

12. **Slide the system processor card into PCI Slot 1, making sure that the slot guides engage both sides of the card assembly (Figure 3-10).**

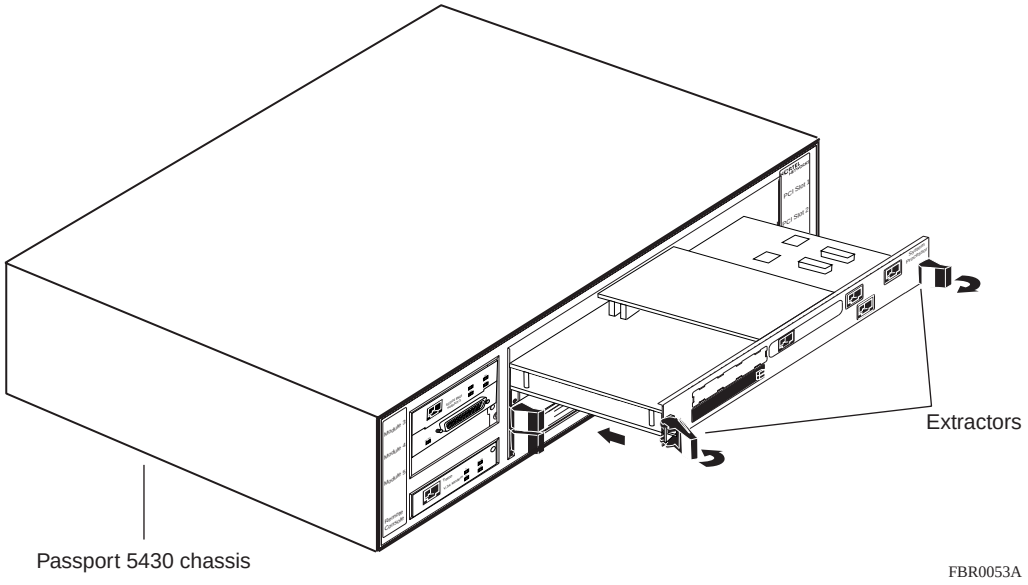

Figure 3-10. Inserting the System Processor Card

13. **Push the system processor card in until its connector pins align with the system processor card connector socket in the Passport 5430 chassis.**
14. **Push the extractors in to lock the card in place (Figure 3-10).**

15. **Using a Phillips screwdriver, tighten the 2 captive screws in the extractors and the 2 captive screws above the extractors (Figure 3-11).**

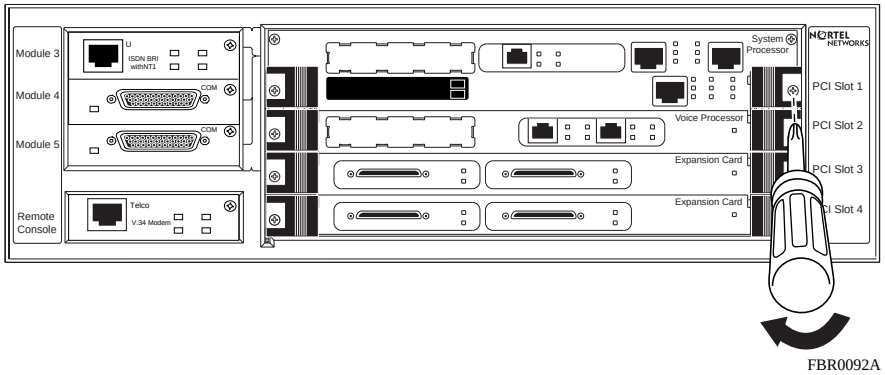

Figure 3-11. Tightening the Extractor Screws

16. **Connect the cables to the ports on the system processor module.**

Chapter 4
Connecting Cables

This chapter describes how to connect cables to the system processor card and AC power source, as follows:

Topic	Page
Connecting Communications Cables	4-1
Connecting a Management Console	4-6
Connecting to the AC Power Source	4-14

Connecting Communications Cables

Gather the communications equipment and cabling that you will attach to the Passport 5430. If you do not have the appropriate cables, see the *Cable Guide*.

Note: For cable interface descriptions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

Then, complete the steps in the applicable sections:

Topic	Page
Connecting to an Ethernet Interface	4-2
Connecting to the ATM T1/E1 Interface	4-3
Connecting a PC Console	4-6
Connecting a Terminal Console	4-8
Connecting an External Modem	4-10

Connecting to an Ethernet Interface

To connect an unshielded twisted pair (UTP) cable to the system processor module:

1. **Route the cable through the cable loom slot corresponding to PCI slot 1.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

2. **Insert the UTP jack into the RJ-45 receptacle connector, as shown in Figure 4-1.**

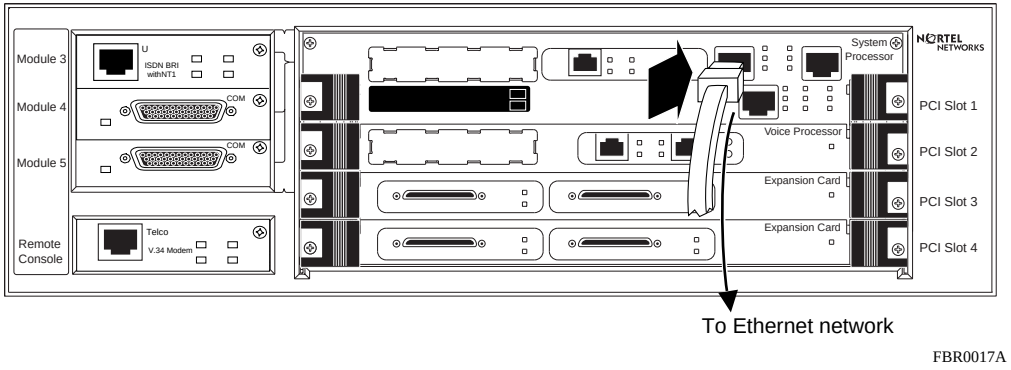

Figure 4-1. Connecting an Ethernet 10/100BASE-TX Cable

3. **Arrange the cable in the cable loom.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

Connecting to the ATM T1/E1 Interface

The ATM T1/E1 PMC module provides one T1 or E1 interface. To connect to the ATM T1 interface, see the next section, "Connecting to the ATM T1 Interface."

To connect to the ATM E1 interface, see "Connecting to the ATM E1 Interface" on page 4-4.

Connecting to the ATM T1 Interface

To connect to the ATM T1 interface on an installed ATM T1/E1 PMC module:

1. **Route the cable in the cable kit (Order No. AA0018040) through the cable loom slot corresponding to PCI slot 1.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

2. **Insert the RJ-48C cable connector into the ATM T1/E1 interface (Figure 4-2).**

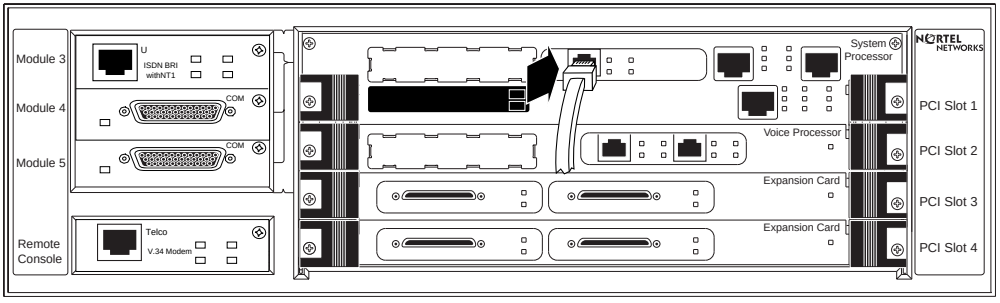

Figure 4-2. Connecting the ATM T1 Cable

3. **Connect the other end of the RJ-48C cable to the T1/E1 communications device.**

4. **Arrange the cable in the cable loom.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

Connecting to the ATM E1 Interface

To connect to the ATM E1 interface on an installed ATM T1/E1 PMC module:

1. **Route the cable through the cable loom slot corresponding to PCI slot 1.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch*.

2. **Insert the RJ-48C cable connector into the ATM T1/E1 interface (Figure 4-2).**

3. **Connect the other end of the RJ-48C cable to the coaxial-to-twisted pair cable adapter (Balun) (Figure 4-3).**

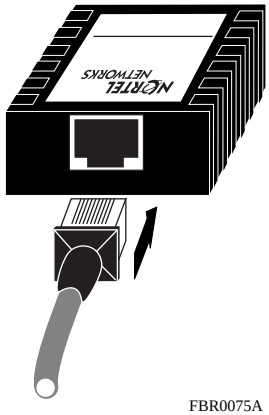

Figure 4-3. Attaching the Coaxial-to-Twisted Pair Cable Adapter

4. **Push the coaxial cable from the E1 communications device onto the connector on the adapter.**

5. **Turn the coaxial cable to the right until the key on the connector clicks into the notch on the coaxial cable (Figure 4-4).**

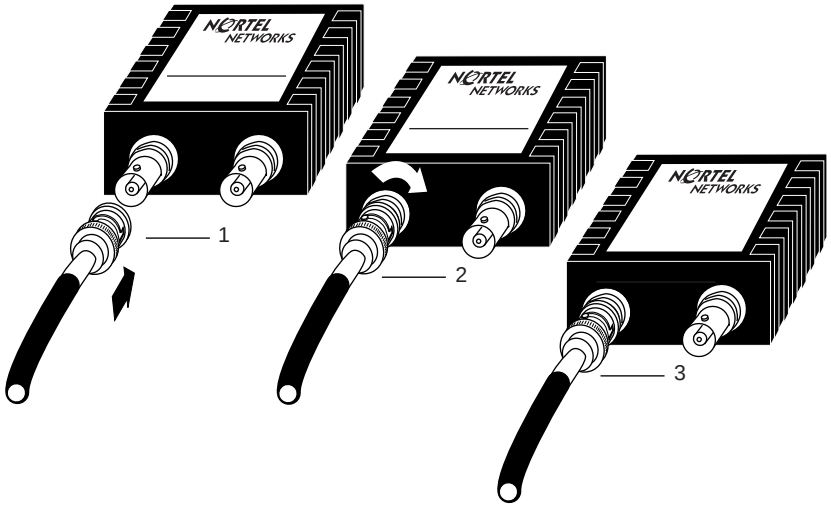

Figure 4-4. Connecting a Coaxial Cable to the Coaxial-to-Twisted Pair Cable Adapter

6. **Arrange the cable in the cable loom.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

Connecting a Management Console

You can use the front-panel console port to connect a PC or terminal. You can also connect a telephone line directly to the optional V.34 console modem adapter module for an out-of-band management console.

Using a local console, you can monitor the results of the Passport 5430 startup diagnostics and set the boot configuration. Using an attached modem, you can enable remote dial-in access for various management tasks.

Note: Before you turn on the Passport 5430 for the first time to boot and configure the router, you must connect a PC or terminal console.

Connecting a PC Console

If you are connecting to a PC, make sure you have a terminal emulation program installed on your PC (VT100 or similar).

To connect a laptop PC to the Passport 5430, make sure that you have the RJ-45 to DB-9 cable (Order No. AA0011026) that Nortel Networks shipped with the Passport 5430, then complete the following steps:

1. **Start your terminal emulation program.**

   This sets up a dummy terminal that allows you to interface with the Passport 5430 Quick-Start program.

2. **Configure the laptop PC console communication data port using the parameters in Table 4-1.**

Table 4-1. Console Parameters

Parameter	Value
Baud rate	9600
Data bits	8
Stop bits	1
Parity	None
Emulation	VT100

You can do this either through the termiinal emulation program or the PC control panel and the instructions in your PC documentation.

3. **Route the cable through the cable loom slot corresponding to PCI slot 1.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

4. **Insert the blue RJ-45 receptacle end of the console cable into the Passport 5430 Console port (Figure 4-5).**

   For pin assignments, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

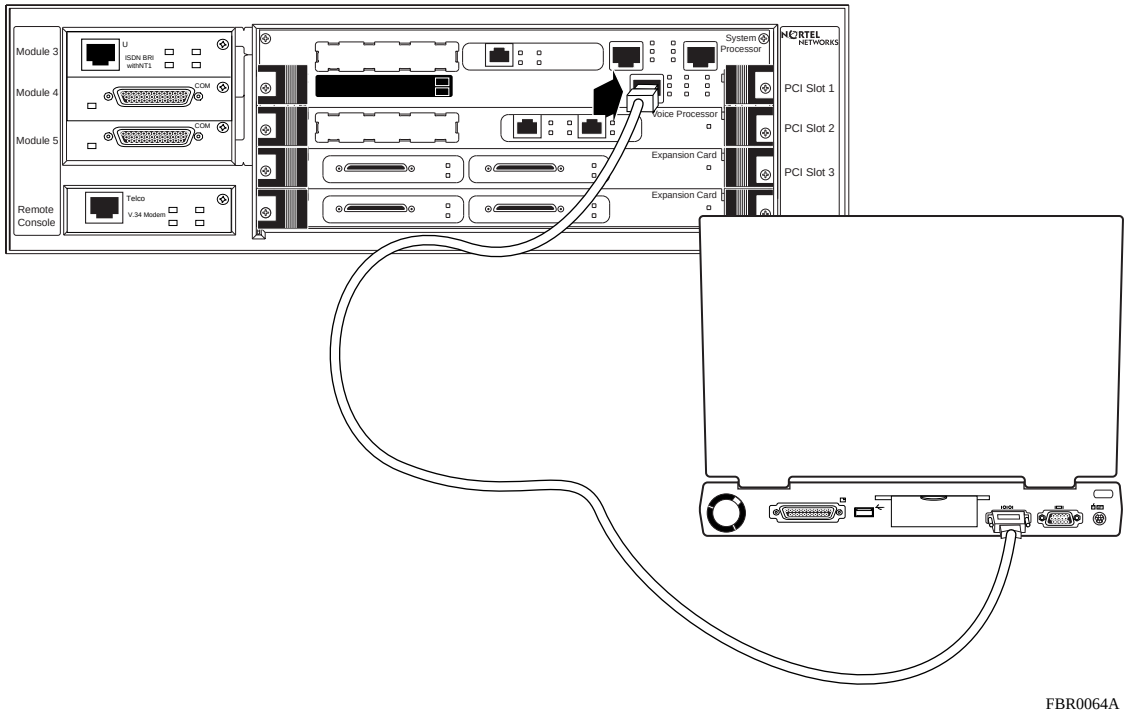

Figure 4-5. Connecting the Console Cable

5. **Arrange the cable in the cable loom.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

6. **Connect the DB-9 end of the cable to the communications data port on the back of the laptop PC.**

Connecting a Terminal Console

To connect a terminal console to the Passport 5430, make sure that you have the RJ-45 to DB-9 cable (Order No. AA0011026) that Nortel Networks shipped with the Passport 5430 and a DB-9 to DB-25 adapter (not supplied), then complete the following steps:

1. **Turn on and configure the terminal, using the parameters in Table 4-2 and the terminal user guide.**

Table 4-2. Console Parameters

Parameter	Value
Baud rate	9600
Data bits	8
Stop bits	1
Parity	None

2. **Route the cable through the cable loom slot corresponding to PCI slot 1.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

3. **Insert the RJ-45 receptacle end of the console cable into the Passport 5430 Console connector.**

   For pin assignments, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

4. **Attach the DB-9 receptacle connector to the DB-9 end of the adapter.**

5. **Attach the DB-25 end of the adapter to the console host connector (Figure 4-6).**

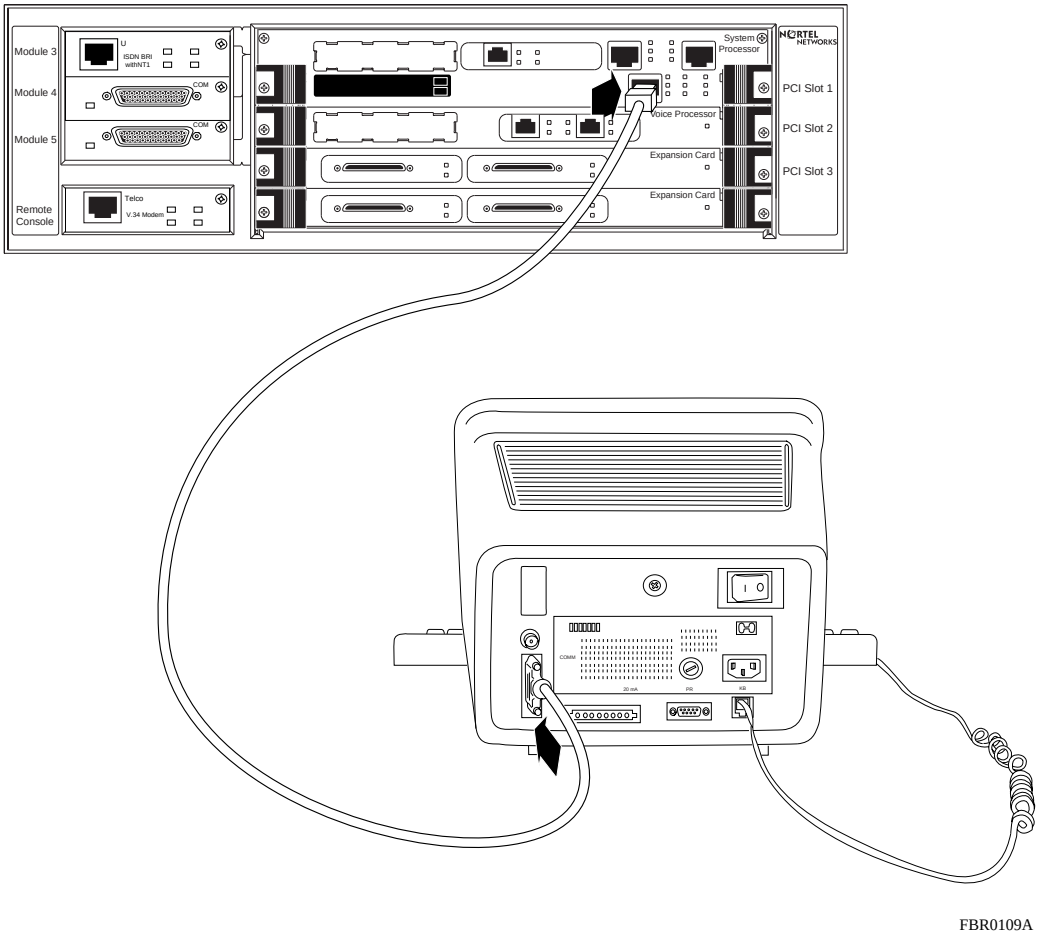

Figure 4-6. Connecting a Terminal Console to a Passport 5430

Connecting an External Modem

A modem provides remote access to the Passport 5430. It is a good idea to connect a modem in case the Passport 5430 experiences system problems.

Note: Before you turn on the Passport 5430 for the first time to boot and configure the router, you must connect a PC or terminal console.

To use a modem connection as a management console, you can connect a telephone line directly to the optional V.34 console modem adapter module, or you can connect an external modem to the console port.

For instructions on connecting to an integrated V.34 console modem module, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

Table 4-3 provides the default settings for both types of modem interfaces.

Table 4-3. Console Modem Defaults

Modem Signal/Parameter	Default Value
Clear to send (CTS)	On
Data terminal ready (DTR)	Set to answer all incoming calls.
Data carrier detect (DCD) or received line signal detection (RLSD)	On while carrier is present (the Passport 5430 uses DCD to detect modem connect and disconnect).
Data set ready (DSR)	On
Ready to send (RTS)	Ignored
Synchronous/asynchronous mode	Asynchronous
AutoAnswer	Answer on 2 rings with DTR active.
Local character echo	Off
Supervisory functions	Off
Baud rate	9600
Data bits	8
Stop bits	1
Parity	None

To connect an external modem to the Passport 5430, you need an AT or Hayes compatible modem and the RJ-45 to DB-9 cable and adapter kit (Order No. AA0011026) that Nortel Networks provided with the Passport 5430.

To connect an external console modem:

1. **Configure the modem, using the parameters in Table 4-3.**

   See the modem user guide for instructions.

2. **Turn off the modem.**

3. **Route the cable through the cable loom slot corresponding to PCI slot 1.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

4. **Insert the 8-pin receptacle end of the modem cable into the Passport 5430 Console interface (Figure 4-7).**

   For pin assignments, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

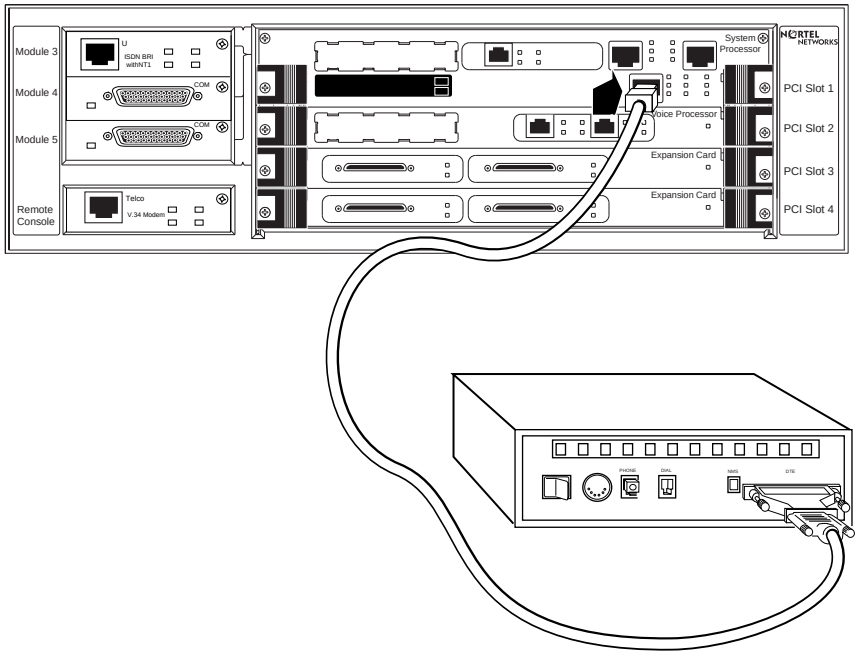

Figure 4-7. Connecting an External Console Modem

5. **Attach one end of the modem adapter to the connector on the console cable, then tighten the screws (Figure 4-8).**

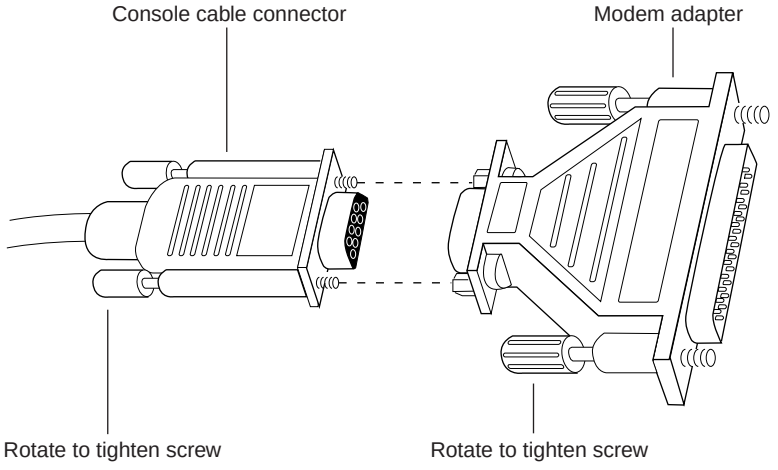

Figure 4-8. Attaching the Modem Adapter

6. **Connect the complete cable unit to the modem RS-232 data communications interface.**

7. **Arrange the cable in the cable loom.**

   For instructions, see *Installing and Operating the Passport 5430 Multiservice Access Switch.*

Connecting to the AC Power Source

Danger: Make sure that the power switch on each Passport 5430 power supply is in the off (0) position before you connect the power cables.

To connect a power cable to the Passport 5430:

1. **Connect the power cable to the power connector on the power supply (Figure 4-9).**

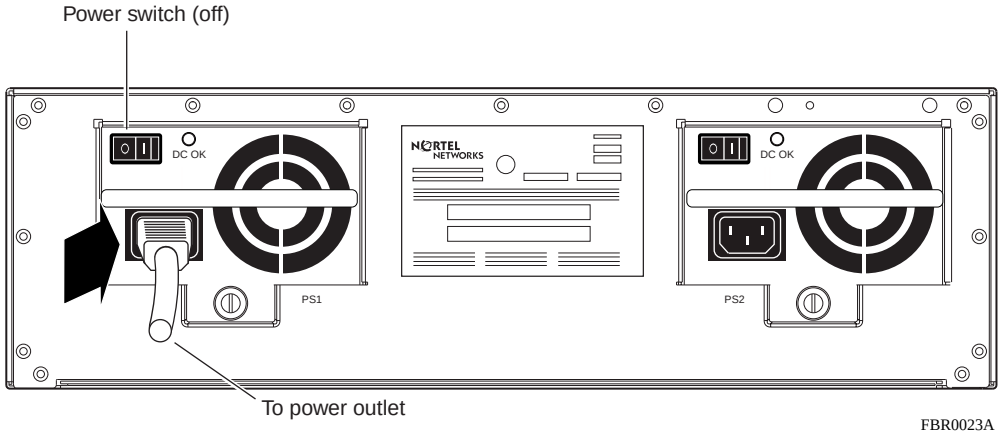

Figure 4-9. Connecting the Power Cable to the Passport 5430

2. **If you have a redundant power supply, connect the power cable to the power connector on the second power supply.**
3. **Connect the remote end of each of the power cables to a grounded outlet.**
4. **Turn on the Passport 5430.**